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BREEDS OF BEEF CATTLE.

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INTRODUCTION.

The decrease in the number of beef animals in the United States, with the resulting high prices which have prevailed during recent years, has caused greater interest to be taken in this industry, and many men who have never raised beef cattle in the past are taking up this line of work.

The question most frequently asked about cattle usually pertains to the breed which should be used in a certain community or under certain conditions. All breeds are not similar; some have superior points to others, and a certain breed may be better suited to conditions existing in one locality or one State than any other breed. For this reason it is well to find out which breed is best suited to local conditions, and to induce as many farmers as possible to raise that breed, because of the better prices which may be secured from the sale of a uniform product and the ease with which suitable breeding stock may be obtained near home. Some information is presented herewith which will help to answer some of the questions which arise as to the value of the various breeds of cattle.

CLASSIFICATION.

Cattle which are used for the production of beef are divided into two general classes, the strictly beef breeds and the dual-purpose breeds. The former are, as the name implies, valuable mainly for the production of meat, and have been carefully bred and developed in order to produce a maximum amount of beef of high quality. Care has been taken to develop to the greatest extent those portions of the body from which are secured the high-priced cuts of beef. The cows give milk enough for their calves, but not much more.

NOTE.—The distinguishing characteristics of the several breeds of beef and of dual-purpose cattle are presented in this bulletin. The information is of interest to cattle raisers desirous of securing the breed best suited to a particular locality or to certain conditions.

The dual-purpose breeds are a class of cattle which have been developed to produce a fair to good quality of beef, and at the same time the females should give a good flow of milk.

BEEF BREEDS.

The breeds of beef cattle in the United States are the Shorthorn (sometimes called Durham), Polled Durham, Hereford, Aberdeen-Angus, and Galloway. Each of these breeds has been carefully developed for a long period of years, with the result that individuals transmit their characters very readily when bred to native or scrub cattle. With somewhat frequent exceptions in the case of Shorthorns, the cows of these breeds are not heavy milkers, and in this

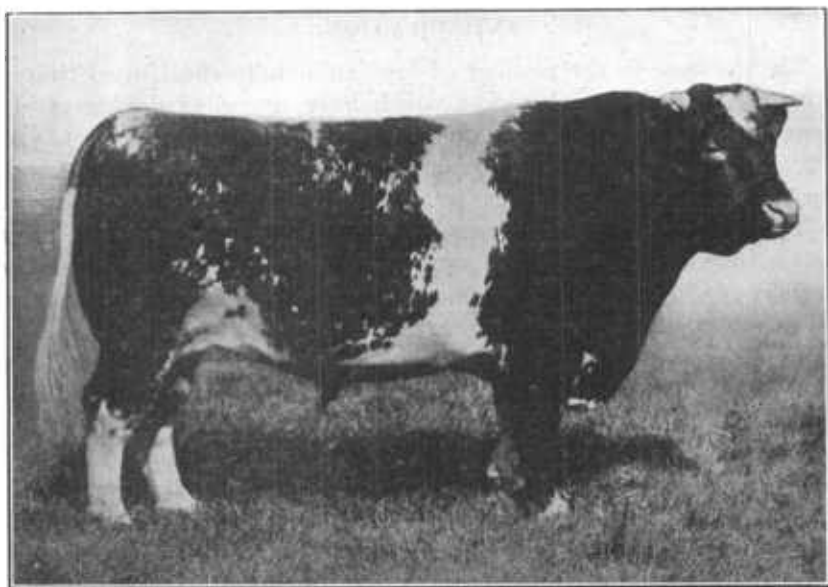


FIG. 1.—Champion Shorthorn bull.

point lies their success as beef cattle, for the milking tendency is associated with a conformation of body which prevents the animal from yielding the greatest quantity and the best quality of beef. The beef breeds have been bred for the maximum production of beef, and only enough milk is desired to nourish and produce a good, thrifty calf. They are most popular with farmers or ranchers who raise a considerable number of cattle.

SHORTHORN.

The Shorthorn is the most popular of the beef breeds in the United States, as shown by their numbers and by their general distribution over all parts of the country. They have a great range of adapta-

bility and do well everywhere. The milking qualities, combined with the high standard as a beef animal and the gentle disposition, have caused the Shorthorn cow to be termed "the farmer's cow." The merit of the breed has been proved on the ranges of the West, where the bulls have been used for grading up the scrub cattle of the plains. The Shorthorn crosses well with other breeds or with the scrub cattle, producing from scrub cows calves which develop into fairly desirable beef cattle. The grazing ability of the Shorthorn is not so good as that of some of the other breeds, but where grasses are abundant and feeds are plentiful there is no breed which will surpass it for beef production. The large milk flow insures a good calf. However, the cows have been criticized to a certain extent by western ranch-

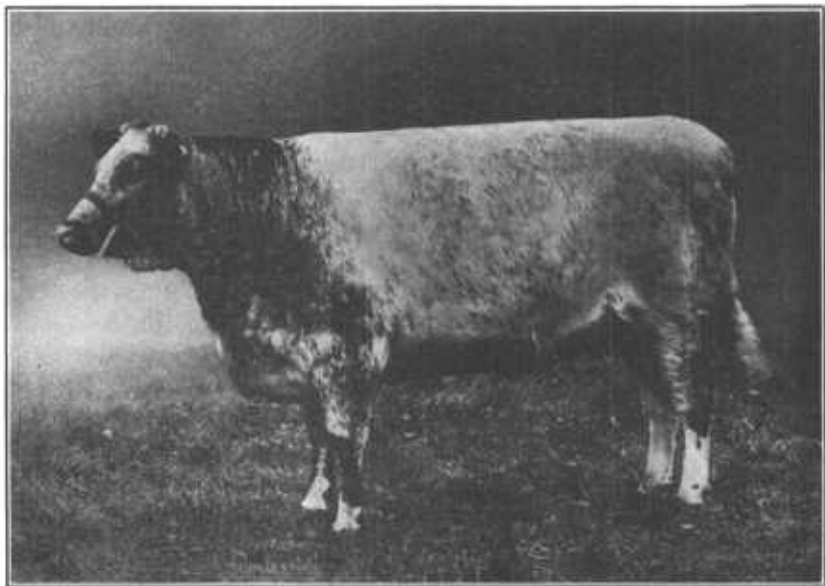


FIG. 2.—Prize Shorthorn cow.

men because the large milk flow causes many of them to lose a teat or a portion of the udder, as the calves can not always take all of the milk. The Shorthorn is early maturing, growthy, and fattens readily. The steers sell readily as feeders, and although they have not won as readily as the Aberdeen-Angus in the show ring, they produce very high-class beef, with the thick loin and full hind quarter which furnish profitable cuts.

The three important strains of Shorthorn cattle have been the Booth, the Bates, and the Scotch tribes. The Booth and Scotch strains represent the true beef type of Shorthorns, while the Bates approaches the dual-purpose type. The Shorthorn is the largest breed of beef cattle. The bulls attain a weight of 1,800 to 2,200

pounds or more, while the mature cows usually weigh from 1,300 to 1,600 pounds when raised under favorable conditions. Greater weight in both cows and bulls is not rare, but extremely heavy animals are not especially desired.

The color of this breed may be red, red and white, pure white, or roan. No other breed of cattle has the roan color, therefore this color in any other cattle usually signifies the presence of some Shorthorn blood.

In conformation, the Shorthorn is of the true beef type, being wide, deep, lengthy, and thickly fleshed. The great width of the Shorthorns, combined with their depth, gives them a more rectangular form than any of the other breeds, while the wide variation in the distribution of the breed has caused a slightly greater difference in type to be recognized than in other beef breeds. In the cow the following points should be noted: The horn is usually small and curved forward, with the tips pointing inward, upward, or sometimes downward, and they should be of a waxy, yellowish color. The head should be shapely, with great width between the eyes, short from the eyes to the muzzle, which should be large and flesh-colored, with large nostrils; a black muzzle is objectionable to most breeders. The neck should be short and full, blending well into head and shoulder. The shoulders should be smooth and well covered with flesh, the crops should be full, the heart girth should be large, and the fore flank low. The chest should be wide and deep, with the brisket thick and well to the front. The ribs are usually well sprung and the barrel well developed. In good individuals, the back is broad and the loin is wide, deep, and thickly fleshed. The hips are wide and should be well covered with flesh; the rump is long, wide, and level, carrying an abundance of flesh. The hindquarter is better developed in the Shorthorn than in any other breed; it is characteristic in that it is almost straight from the root of the tail to the hocks, and is wide and thick, carrying the flesh well down, thus giving a maximum amount of flesh. The flank is low, the udder is usually well developed, extending well forward, with prominent milk veins. The teats are of medium size.

The bull should possess the same desirable features as the female, without her feminine qualities. He should show masculinity by developing a heavier horn, a larger and thicker neck, a heavier bone throughout, and greater depth, thickness, and scale. His horns are straighter and heavier than the cow's, but they should not show coarseness.

The Shorthorn has sometimes been criticized because of poor development or lack of fullness in the crops, a high fore flank, and a poorly developed heart girth. They are sometimes rather leggy, although animals of Scotch breeding are usually thick fleshed and

low set. There has been a tendency to patchiness near the root of the tail and to rolls on the sides, but the breed is improving in this respect in that the animals are becoming more smooth.

For the benefit of persons desiring information as to the principal lines of breeding in this country, the following has been furnished by the American Shorthorn Breeders' Association:

The ten bulls which have probably done most for the improvement of Shorthorn cattle as a breed in the last 15 years are as follows: Whitehall Sultan 163573, Choice Goods 186802, Cumberland's Last 229822, Avondale 245144, March Knight 188105, Villager 295884, Cumberland 118578, Merry Hampton 132572, Lord Banff 150718, and Whitehall Marshal 209776. The most popular families of Shorthorns in this country at the present time are Augustas, Missies, Victorias, Duchess of Glosters, and Orange Blossoms.

The secretary of the American Shorthorn Breeders' Association is Mr. Frank W. Harding, Union Stock Yards, Chicago, Ill.

POLLED DURHAM.

The Polled Durham is a polled Shorthorn. There are two general divisions of this breed, the "single standard" and the "double standard." The single-standard Polled Durhams were produced by breeding "muley" cows to Shorthorn bulls, selecting the polled offspring and breeding these to other Shorthorn bulls. This grading up was continued until the polled offspring was brought to the fifth cross, which contained $96\frac{2}{3}$ per cent or more of Shorthorn blood, and which qualified for entry in the Polled Durham herdbook. The resulting progeny resembled the Shorthorns, but were rather leggy, lacked a thick smooth covering of flesh, and inclined more to the dual-purpose type of animals. These cattle could be registered in the Polled Durham herdbook, but were not eligible for registration in the American Shorthorn herdbook.

The double-standard Polled Durhams were secured by using purebred Shorthorn cows that were either natural muleys or had undeveloped horns, for breeding to Shorthorn bulls. The double-standard Polled Durhams are purebred Shorthorns and can be registered in either the Shorthorn or the Polled Durham herdbooks. The double-standard Polled Durhams were bred chiefly from the Gwynne, White Rose, and Young Phyllis families of Shorthorns.

This breed is similar to the Shorthorn in every way except that it is hornless. It is a comparatively new breed of cattle, and has not become so popular as the older breeds, but it is increasing in popularity. They will do well under the same conditions which favor the production of good Shorthorns. Some breeders have developed the dual-purpose qualities in the animals with the result that there is considerable variation in type.

According to the Polled Durham Breeders' Association, the following bulls have proved to be of great importance in the improvement of the breed in recent years: Golden Gauntlet X 1140, Cambridge Lad 3d X 1300, Golden Hero X 2847, Roan Hero X 3613, Tippecanoe 44th 1698, Field Marshall X 1758, Grover Abbotsburn X 3938, The Confessor X 5985, Windermere Tip X 3094, and Orange King X 3242. The following cows played a most important part in establishing the Polled Durham breed, and their names are found more frequently in pedigrees than any others: Imp. Young Mary by Jupiter, Imp. Rose of Sharon by Belvedere, Imp. Young Phyllis by Fairfax, Imp. Ruby by Young Dimple, and Imp. Rosemary by Flash. At the present time the following cows are of families which

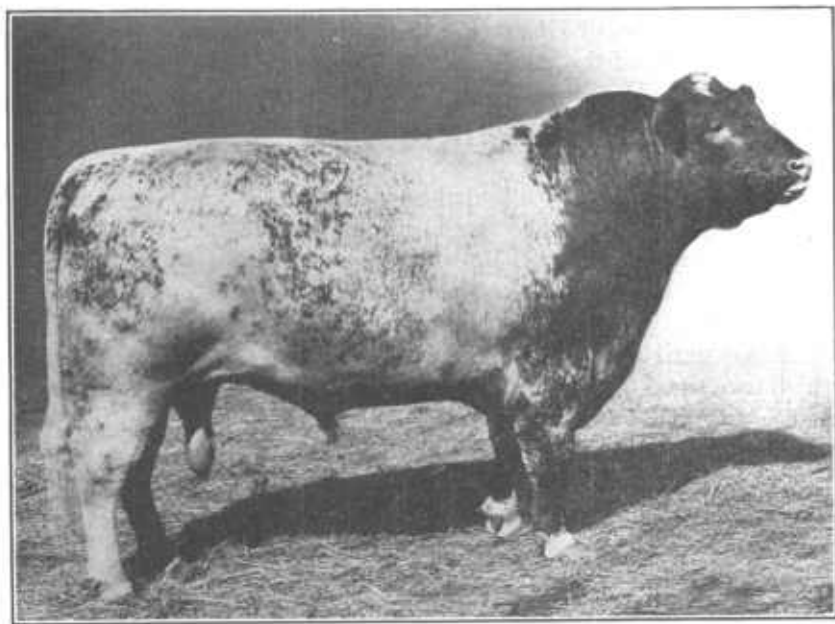


FIG. 3.—Champion Polled Durham bull.

are most prized by the leading breeders: Imp. Victoria 51st by Royal Duke of Gloster (29864), Imp. Windermere 3d by Grand Duke 31st (38374), Imp. Princess Royal 64th by Scottish Archer (59893), Imp. Lady of the Meadow by Chancellor (68693), and Imp. 12th Duchess of Gloster by Champion of England (17526).

The secretary of the Polled Durham Breeders' Association is Mr. J. H. Martz, Greenville, Ohio.

HEREFORD.

The Hereford ranks next to the Shorthorn in numbers in the United States. Their popularity is constantly increasing, especially where cattle are raised under range or adverse conditions. As a

"rustler" the Hereford is surpassed by no breed of beef cattle, and they excel the Shorthorns in this respect. They have been recognized as a breed which responds readily to a favorable environment as well as being able to thrive under adverse conditions where other breeds would not do well. On scant pastures and on the range where water holes are far apart the Hereford has shown its merit. The bulls are active, vigorous, prepotent, and very sure breeders.

Formerly the Hereford was severely criticized because of a light hind quarter, but the breed has improved wonderfully in overcoming this defect during the last two decades. The breed is somewhat less rangy, more compact, and heavier fleshed than formerly. While

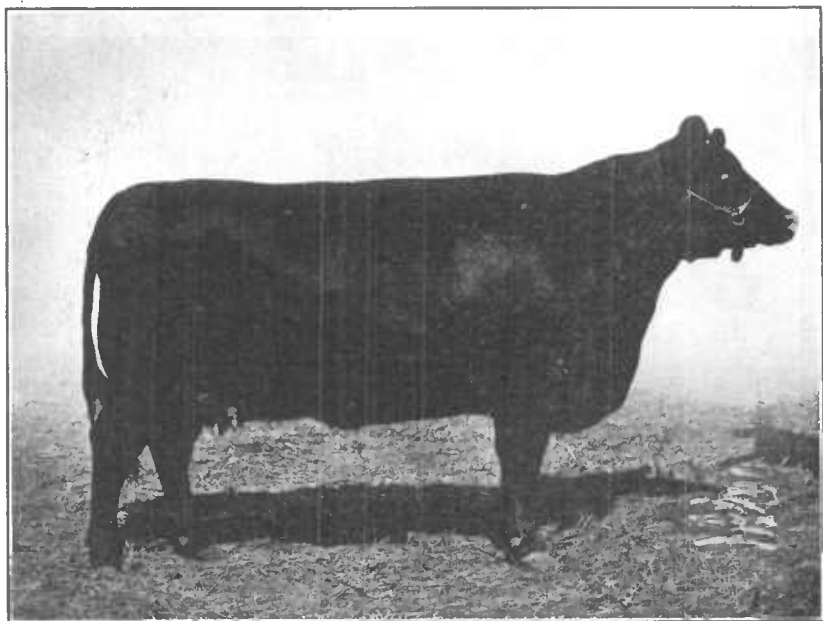


FIG. 4.—Champion Polled Durham cow.

the Hereford cows have been criticized because of their scanty milk flow, they usually produce enough to raise a good calf. As a breed they have a better heart girth, stronger constitution, and can withstand adverse conditions better than the Shorthorns. They are early maturing and fatten readily in the feed lot.

The weight of Hereford cattle is practically the same as that of the Shorthorn. Mature bulls weigh from 1,800 to 2,200 pounds or more, while good cows weigh from 1,200 to 1,600 pounds. It is not unusual for mature animals of either sex to weigh more than stated here. The conformation of the Hereford is such that he looks smaller than a Shorthorn of equal weight.

In color the Hereford is red with white markings. The white markings usually consist of a white face and head, the white extending along the top of the neck and shoulders, a white throat and dewlap, and white on the underline. Frequently, however, no white is found on the neck or top of shoulders. White is sometimes found on other parts of the body; and, while it is permissible, it is not desirable. A pure-white face is usually preferred, although many purebred animals show spots about the face and especially some red around the eyes. The red color of the body varies from a light red approaching yellow in color to a very dark red approaching black. Neither the light-red nor the blackish-red color is desirable, a rich deep red being the most popular. The hair is usually of medium

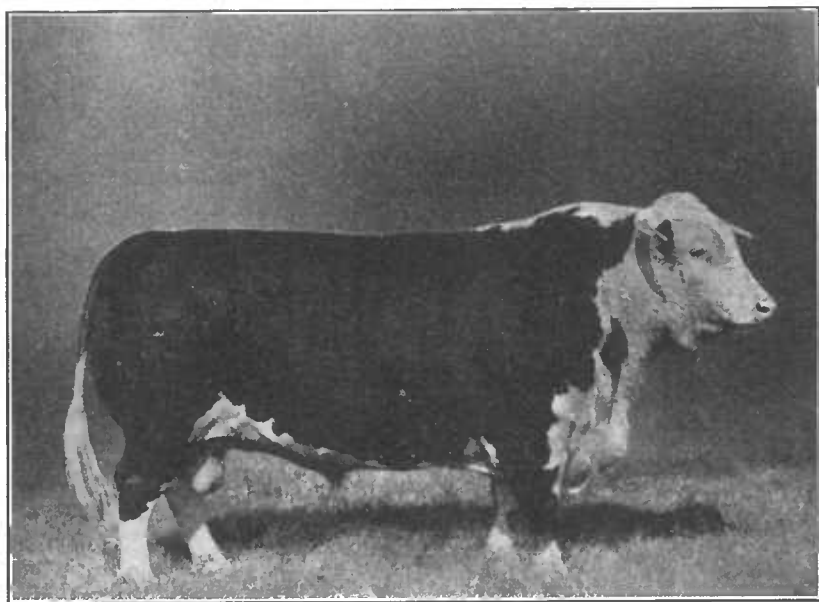


FIG. 5.—Champion Hereford bull.

length with a curly tendency, although short-haired animals are common.

The general conformation of the Hereford is the same as that of the Shorthorn, except that the rectangular form is not quite so pronounced and the prominent bones are more smoothly covered. The form is low, compact, and blocky, with well-sprung ribs, broad loin, and wide hips, without the prominent hip bones of the Shorthorn, and with a more rounded and bulging quarter, although developed to a lesser degree in this respect than the Aberdeen-Angus. The head is broad and short with large nostrils, and large muzzle and mouth, which are indications of a good feeder. The horn is longer and somewhat coarser than the Shorthorn, white in color with waxy tips, and

curves outward, upward, and backward, or outward and forward, and occasionally they are drooping. The horns of the bull are straighter and heavier, and usually grow outward, frequently growing forward, backward, or downward, but seldom growing upward. The neck is short, thick, and blends well with the shoulder. Great width, depth, and length of chest and a fullness of the crops give the Herefords their constitution and endurance, which the breeders have been careful to preserve. The loin is full and deep and the rump and hind quarter are usually well developed, carrying a large amount of flesh. This portion of the body has been greatly improved within recent years, and the tendency to roughness and patchiness has been reduced until the breed now stands out as one showing extreme beef

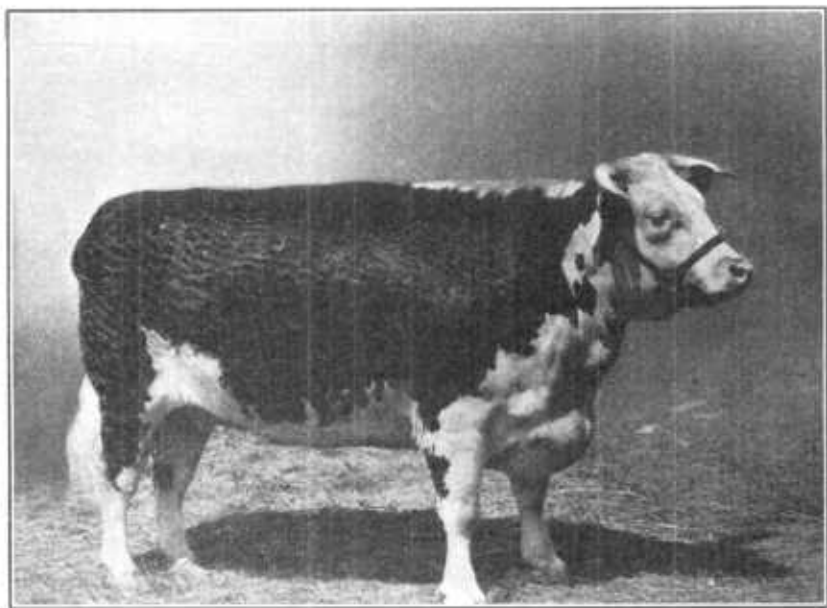


FIG. 6.—Champion Hereford cow.

type, with smoothness of form and much quality. For these reasons, combined with their rustling abilities, the Hereford has become the most popular breed for improving range stock. The effects of using Hereford bulls for this purpose has had a great attraction for cattlemen in the Southwest, especially in the Panhandle region of Texas.

The Herefords do well in the South, as the heat there seems to bother them no more than it does in the corn belt. They seem to be especially adapted for use on the larger plantations, where animals are not given extremely good care, and where the production of beef alone is desired. Two or three crosses on the native stock of the South produce a good beef animal that matures early and fattens

out well. On plantations especially or on farms with only fairly good pastures the Hereford will give better results than the Short-horn.

The American Hereford Cattle Breeders' Association mentions the following as some of the bulls which have been most influential in improving the Hereford breed in the last 15 years: Perfection Fairfax, Beau Donald, Beau Brummel, Corrector, Disturber, Bonnie Brae 8th, Perfection, March On 6th, Prime Lad, and Repeater. At the present time the Anxieties, Perfection Fairfaxes, Beau Donalds, and Belle Donalds are the most popular Hereford families.

Further information concerning this breed of cattle may be secured from Mr. R. J. Kinzer, secretary of the American Hereford Cattle Breeders' Association, 1012 Baltimore Avenue, Kansas City, Mo.

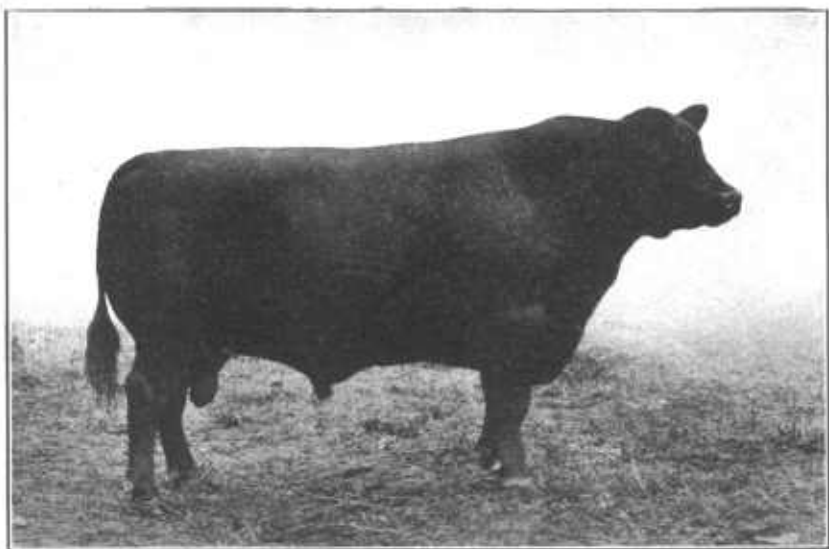


FIG. 7.—Champion Aberdeen-Angus bull.

POLLED HEREFORD.

The Polled Hereford is a new breed developed by selecting and breeding Herefords which showed polled characteristics. The double-standard Polled Herefords are purebred Herefords which are hornless and are eligible to registry in either the American Hereford herdbook or the American Polled Hereford record. They differ in no way from the Hereford except that they have no horns. The polled feature has been well fixed and the bulls when mated with native cattle sire few calves having either long scurs or horns.

The secretary of the American Polled Hereford Cattle Breeders' Association is Mr. B. O. Gammon, Des Moines, Iowa.

ABERDEEN-ANGUS.

Aberdeen-Angus cattle are solid black in color and have no horns. These characteristics are so strongly developed that a bull, when bred to horned cows of various colors, will usually produce calves of which 85 per cent or more are black in color and hornless. Occasionally a red animal is found in this breed, but the color is not popular among breeders. While the Aberdeen-Angus is an old breed, it is only within recent years that it has been so popular in the United States. While they are good rustlers, they have never been as popular on the ranges of the West as either the Hereford or the Shorthorn. They stand next to the Hereford and above the Shorthorn as grazers on scanty pastures. This breed is extremely valuable

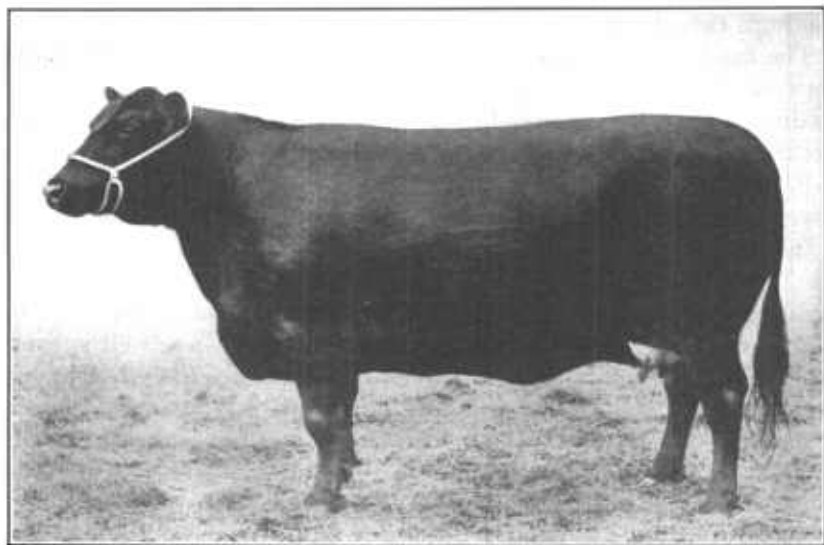


FIG. 8.—Champion Aberdeen-Angus cow.

for grading up native cattle, but they have been criticized to a certain extent by rangemen because they do not get a greater percentage of calves. This has usually been true where they have been in a herd with horned bulls. If all the bulls were either polled or dehorned there would doubtless be less ground for this claim. The milking qualities of the cows are only fair; they give more milk than the Hereford, but not as much as the Shorthorn. A sufficient quantity of milk is produced to raise a good calf.

This breed is very early maturing, and has a tendency to fatten well at any age, hence their popularity for producing baby beef. In general form they are different from the Shorthorn and Hereford. The body is more cylindrical in shape, and they are smoother throughout than either of the breeds named. The Angus responds

quickly to good treatment, and, because of their readiness to fatten, early maturity, exceptional vigor, high quality, general smoothness and uniformity, and the high percentage of valuable meat produced, it is the most popular of all beef breeds among cattle feeders. They usually dress out a higher percentage of marketable meat than any other breed, and their merit has been shown by the repeated winnings they have made in the show ring and on the block.

They stand either heat or cold well, and are popular in the South as well as in the corn belt. Because of their reputation for finishing smoothly and killing out well they are very popular in the corn belt and neighboring States where much feeding is done. They are becoming more popular in the South, and rank next to the Hereford and above the Shorthorn in their general adaptability to average southern conditions.

The head of the Angus shows a sharp tapered poll, great breadth between the eyes, a prominent forehead, prominent eyes, a nose of medium length, a large mouth and muzzle, and large nostrils. They are more restless or nervous than the Shorthorn. The neck is short, full, and has a well-developed crest in the bull, but it does not always blend smoothly with the shoulders, which are sometimes a little prominent. The chest shows great depth, width, and length. The body is cylindrical in shape and does not show the squareness or blockiness of the Shorthorn and the Hereford, but is noted for its compactness and good covering of flesh. The ribs are well sprung, curved, and long, giving the cylindrical form to the body. The loin and rump are well fleshed and deeply covered, but entirely different in shape from the Shorthorn, as the great width and squareness are absent. The deep covering of flesh of the rump, the smallness of bone, and the deep, rounding, bulging hindquarter gives a maximum amount of meat. Note the difference in the hindquarter of the Angus and the Shorthorn. The latter is broad and straight from pin bones to the hock, while the Aberdeen-Angus has less breadth and a very rounded bulging quarter with a deep twist. The Angus is not so low in the flank as the Shorthorn and some individuals are light in the hindquarter.

The quality of the animal is unsurpassed, as shown by the soft, pliable, mellow skin, and fine hair. The meat is fine-grained and of the highest quality. The constitution and vigor of this breed as indicated by well-developed chest and good heart girth are worthy of mention. For grading up native stock and for crossing, they hold an enviable record.

We are informed by the breeders' association that some of the bulls which have been most prominent in improving the Aberdeen-Angus breed during the last 15 years are Heather Lad of Emerson 2d 19049, Black Monarch of Emerson 30331, Black Woodlawn 42088,

Lucy's Prince 46181, Prince Ito 50006, Baden Lad 61883, Blackbird Ito 64116, Star of Denison 82426, Sir Blackbird 98347, Earl Eric of Ballindalloch 100422, and Undulata Blackcap Ito 2d 116275. The leading families in this country at the present time are Blackbirds, Trojan Erica, Pride of Aberdeen, Queen Mother, and Heather Bloom.

The secretary of the American Aberdeen-Angus Breeders' Association is Mr. Charles Gray, Union Stock Yards, Chicago, Ill.

GALLOWAY.

The Galloway is one of the oldest breeds of cattle. They are polled, solid black in color, though occasionally some brown is shown, and have a long, curly, silky coat. This breed is very prepotent and transmits the black color and polled characteristics readily to offspring from cows of any color. As high as 90 per cent of the calves from various-colored cows are black, and from 95 to 99 per cent of the offspring from horned cows are polled. This breed is slow maturing when compared to the Aberdeen-Angus or the Hereford. In size they are smaller than any of the other beef breeds. Mature bulls usually weigh from 1,700 to 1,900 pounds, while the mature cows weigh from 1,000 to 1,300 pounds each.

These cattle are exceedingly good rustlers, not being excelled by any other beef breed in this respect, and their long, silky coat of hair enables them to stand severe weather with little discomfort. For these reasons they have proved to be very valuable on some of the ranges of the Northwest and of Canada. They do not respond so readily to good treatment and to plenty of feed as do the other breeds, and have therefore not become popular in the corn-belt States.

In form they are low set and deep, but are proportionately longer than the Aberdeen-Angus and flatter of rib. The head is somewhat similar to that of the Angus, except that the poll is not as sharp. The head is covered with long wavy hair and the ear is set farther back from the forehead. The body is long and of medium depth. The rump is long and well filled, although the tail head is usually set rather high. The hind quarter is usually good, being full, similar to that of the Angus. The bone is fine, the skin mellow, the hair soft and silky, and the grain of the meat is fine and high in quality. Little attention has been devoted to the milking qualities of Galloway cows, but they give enough milk to raise a good calf. The milk is regarded as ranking high in butterfat and having good quality. The Galloways have commanded especial attention because of their prepotency and the uniformity of the offspring when the bulls are used for grading up or for crossing.

This breed will probably never be very popular in the United States except in the Northwest, where climatic conditions are severe and the range grasses are often scant. In that section, however, the bulls could be used advantageously for grading up native stock.

According to the American Galloway Breeders' Association, the following bulls have played a most important part in the improvement of this breed of cattle during recent years: Worthy 3d 21228 (7762), Scottish Standard 15221 (6488), Druid of Castlemilk 17054 (6159), Captain 4th of Tarbreoch 30933 (9701), Great Scot (6489), Bondsman (7306), Excelsior (7702), The Pathfinder 3d (5991), Keystone (9689), and Sweepstakes (10001). The most popular families, ranking in the order named, are: Maggie, tracing to Maggie of Blackpark (6046); Alice, tracing to Alice of Castlemilk (14282); Nancy Lee, tracing to Nancy Lee of Castlemilk (11971); Lizzie, tracing to Lizzie of Breckonhill (3366); Dora, tracing to Dora of

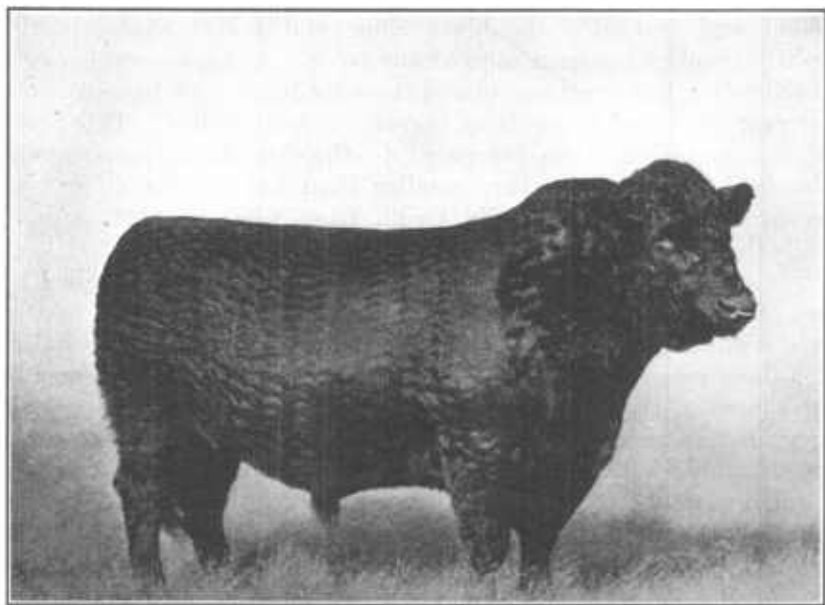


FIG. 9.—Champion Galloway bull.

Priesthaugh (7008); and Lady Stanley, tracing to Lady Stanley (1670).

Specific information concerning the Galloway cattle can be secured from Mr. R. W. Brown, secretary, American Galloway Breeders' Association, Carrollton, Mo.

DUAL-PURPOSE BREEDS.

The dual-purpose cattle have been bred to produce females which would yield a good quantity of milk and produce offspring which would be desirable for beef. As the type of animal necessary for the production of large yields of milk is entirely different from that of the beef animals, it has been impossible to produce a breed which

would combine these functions and be of superior merit for both purposes. The dual-purpose animal may, however, be a desirable milker and at the same time produce calves which make good, though not superior, beef animals. As there has been a constant tendency for some breeders to incline more to the dairy type of animals, while others prefer to develop the beef tendencies, there has been and probably always will be a wide variation in the type of dual-purpose animals. They are not so uniform in conformation as either the strictly beef or dairy breeds. Most breeders prefer to use cows which approach the dairy type nearer than the beef type and to use a bull of the beef type that had a dam with a good milk record. The off-

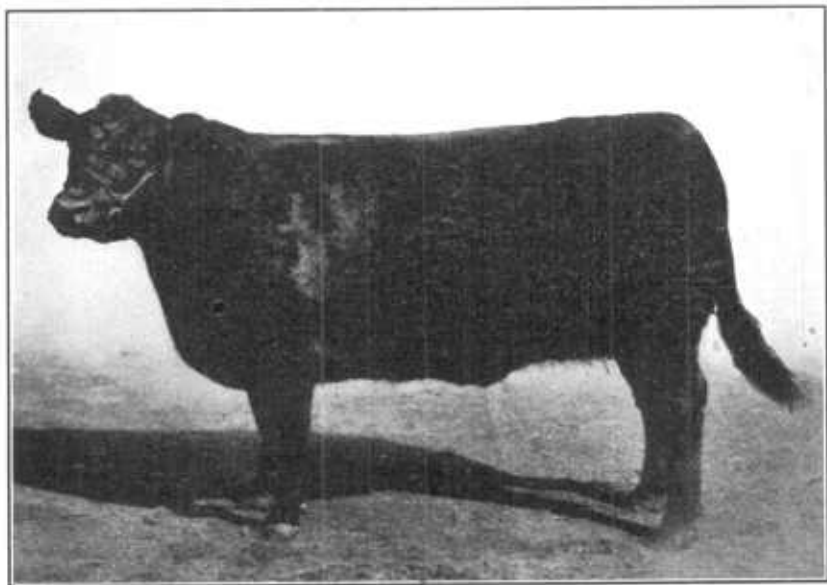


FIG. 10.—Galloway cow.

spring of such cattle necessarily can not be of as uniform type as the breeds which have but one function to perform.

The dual-purpose cattle are popular with the small farmer who keeps but a few cattle and must depend upon them to produce all the milk and butter needed for the family and at the same time raise calves or steers which will sell readily for slaughter purposes. They have not been popular with the ranchman or farmer who raises large numbers of cattle.

The principal dual-purpose breeds in the United States are certain types of the Shorthorn, together with the Red Polls and Devons. Brahman or "Indian" cattle are sometimes included under this class, and are briefly discussed because of their importance in certain restricted sections of the country.

SHORTHORN.

The dual-purpose Shorthorn is more popular than any of the other dual-purpose breeds. They respond readily to good treatment, and have become exceedingly popular with the small farmer. Formerly these cattle were almost entirely of the Bates strain, but at the present time many of them contain considerable Scotch blood. As a breed they are the same as the beef-bred Shorthorns, except that the beefy tendency is not as strongly emphasized. The milking qualities have been developed, and the cows have a conformation approaching the regular dual-purpose form, being longer of limb, higher in flank, larger in barrel, and thinner in hams than the beef Shorthorns.

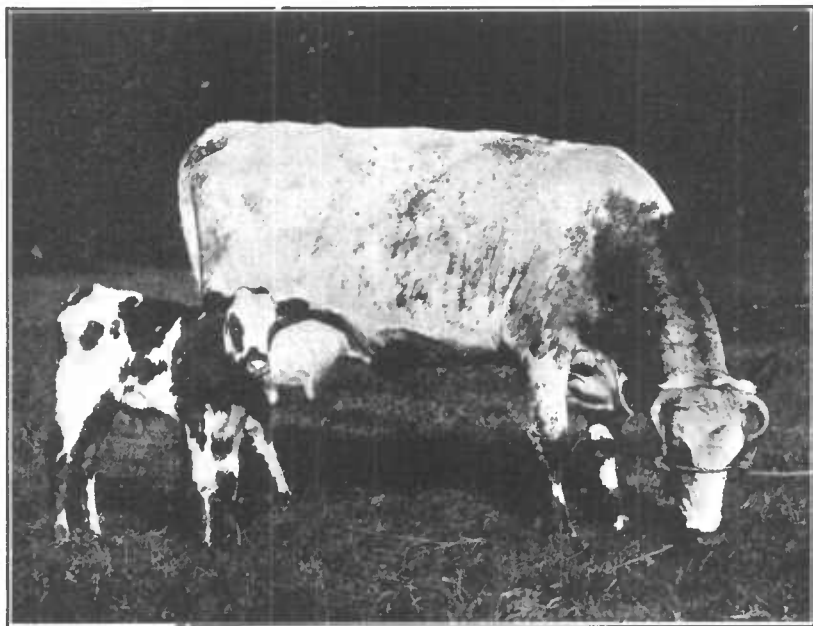


FIG. 11.—Shorthorn cow and calf.

The bulls approach the beef type more than the cows, but are lighter in the hind quarter and a little higher in flank and not so heavily fleshed as the strictly beef type. The udder extends high up in the back and well forward, the milk veins are usually very prominent, and the teats are medium to large in size and are well set. Calves from the cows by a well-fleshed bull usually grow and fatten well and make a good quality of beef.

RED POLLS.

The Red Polled cattle originated in England and were introduced into this country in 1873, but few importations were made until

about 1885. Since that time many have been imported. This is strictly a dual-purpose breed, and approaches the ideal of the dual-purpose type. In size they are smaller than the beef breeds, and have not the thick covering of flesh. Mature bulls weigh from 1,700 to 2,100 pounds or more and the cows from 1,100 to 1,350 pounds or more. Occasionally very heavy individuals are found, but these are the exception and not the rule.

The cattle of this breed are fair grazers, ranking with or slightly ahead of the Shorthorns, but not equal to the Devon or Hereford. They are very prepotent, and give uniformity in offspring when bred to native cows. Like all dual-purpose breeds, it has been hard to fix or to hold a uniform type, as many breeders incline to beef production, while others try to develop the milking qualities to the detriment of the beef form.

This breed has long been celebrated for its early maturity, easy fleshing qualities, and for a fair to good milk flow. The steers have attracted attention and sold for high prices on English markets for years, and have made very creditable showings in this country. They make good daily gains and lay on flesh evenly. They are usually rather leggy, and lack the heavy fleshing qualities of the beef breeds. The hind quarters are less well developed, with a tendency toward a rather thin thigh and a high flank and twist.

The milking qualities of the breed are fair. Many of the cows average over 5,000 pounds of milk a year. The cows flesh up readily when dry. The milk is not rich, usually testing from 3.7 to 4 per cent of fat.

In conformation these cattle resemble the Devon. The head is lean, medium in length, with a well-defined poll covered with a nice tuft of hair of medium length. The neck is longer and thinner than in the beef breeds and does not blend with the shoulders so nicely. The chest is usually well developed and the ribs well sprung, though lacking in a thick covering of flesh. The barrel is developed to a greater extent than with the beef breeds, and the loin and hindquarter



FIG. 12.—Rear view of Shorthorn cow.

are lighter fleshed. The bone is of medium size. The skin is thin, soft, and pliable, and the hair is short and fine, showing quality. The color ranges from light red to dark red, but a deep, rich red is preferred throughout, although a little white on the udder or underline and a white brush are permissible. The udder is well developed in the back, but does not come forward well; it is "chopped off," and the tendency is to develop large teats. The milk veins are prominent and of fair size.

The Red Polls are more nervous than the Shorthorn, but less so than the Aberdeen-Angus. As this is a comparatively young breed, they are not so popular as the older breeds. As dual-purpose cattle

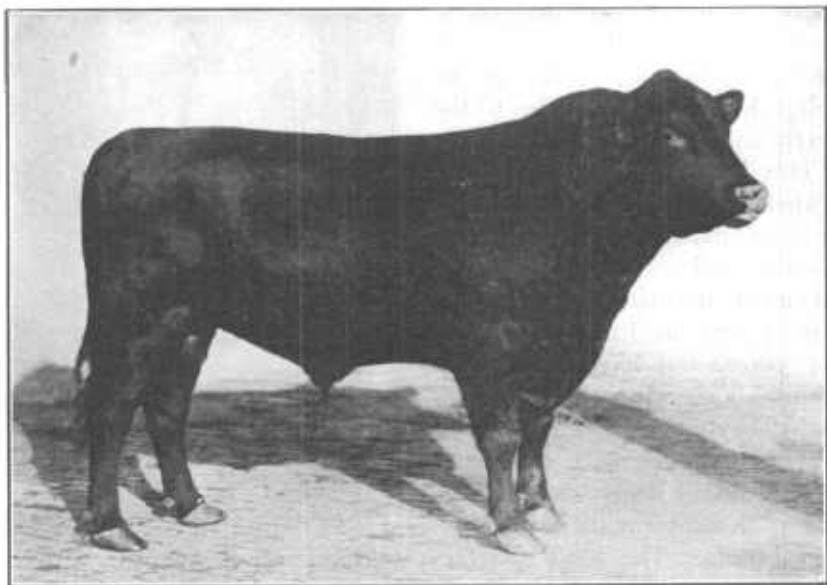


FIG. 13.—Red Polled bull.

they are hard to excel; they are popular in the Mississippi Valley States and have given excellent results for grading up the native cattle in the South, but they have never been used to any extent on the western ranges.

The association for this breed states that the following bulls have probably done more for the improvement of the Red Polled breed during the past 15 years than any others: Corporal 4313, Demon 5421, Abbotsford 4721, Nailer 7396, One Price 8523, Irwin 8253, Cremo 13018, Logan 13500, Dafter 15871, and Elgin 19464. The popular families in this country at the present time are Dorothy, Luna, Pear, Lillette, and Cosy.

The secretary of the Red Polled Cattle Club of America (Inc.) is Mr. H. A. Martin, Gotham, Wis.

DEVON.

This is one of the oldest breeds of cattle. They were introduced into this country at an early date and became popular in New England and in parts of Virginia nearly a century ago. The cows were good milkers, and the steers were used as work oxen or for beef, and filled either place admirably. They are exceedingly good rustlers, are vigorous, hardy, withstand both heat and cold well, and are very prepotent. For these reasons they were popular with the people of New England. They are slower of growth than any of the beef breeds except the Galloway. Their endurance, intelligence, and their

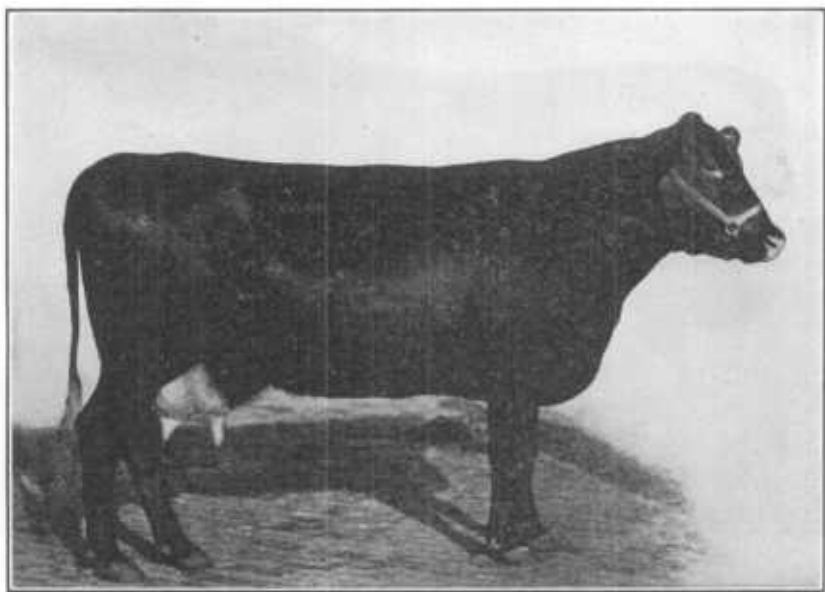


FIG. 14.—Red Polled cow.

gameness have made them popular as work oxen wherever they have been tried—no breed excels them in this respect.

In size they are somewhat smaller than the Red Polled, mature bulls weighing from 1,500 to 2,000 and cows from 1,100 to 1,400 pounds or more. They are solid red in color, white being permitted only on the udder, or near the scrotum of the male, and on the switch of the tail. The shade of red varies, but a rich bright red is preferred. In conformation the Devons incline more to the beef type than to the dual-purpose type. They are close coupled, very compact,

smooth, and rank high in quality and style. They have small bone, which is hard and compact, giving a slender, fine leg.

The head is lean, clean-cut, of medium length, and surmounted by rather long white or waxy horns, which curve upward, forward, outward, and backward in the cow and are almost straight in the bull. The horns of the steers are large, long, and often widespread, usually being very white or waxy, with dark tips. The neck is medium in length, smooth, and blends nicely with the shoulder. The body is compact, fairly well covered with flesh, has well-sprung, deep ribs, and is usually low set. The chest, back, loin, and hind-quarter are usually well developed, though the flank and twist are

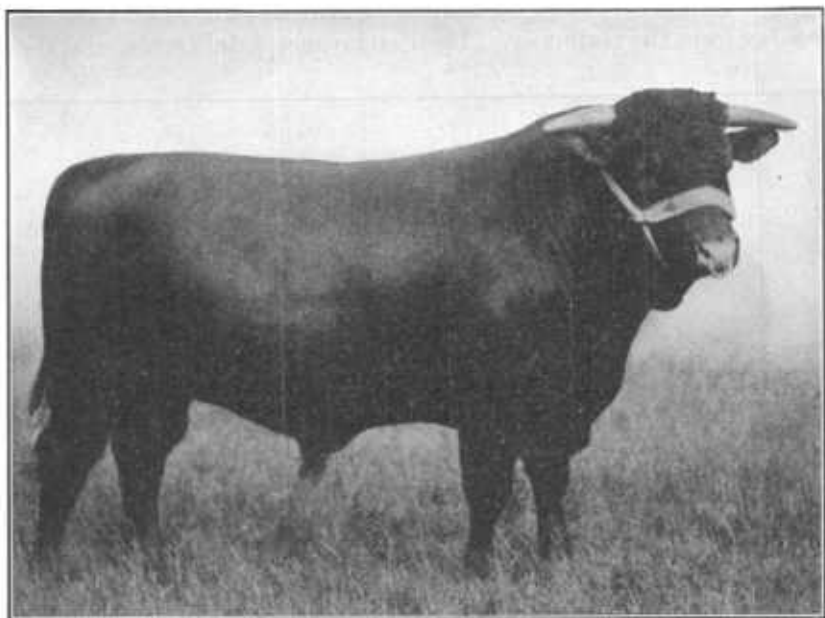


FIG. 15.—First-prize yearling Devon bull.

usually somewhat higher than in the beef breeds. The cows are fair to good milkers, giving rich milk, and always provide an abundance to produce a good calf. The steers fatten somewhat slower than the beef breeds, but produce meat fine in texture and of good quality. The breed can not be surpassed as grazers, but they are usually slower in growth than the beef breeds, and this alone can account for the fact that they have never become popular throughout the country. In New England, in parts of the South, and in a few other States the Devon has proved profitable, especially on lands where the grazing was rather scant or of poor quality. They are prepotent; good calves are produced when good bulls are mated with common cows, and such calves usually make fair milkers. The Devon does

not now hold a high rank among the breeds of the United States; since the ox has lost in popularity as a draft animal the Devon has become less popular.

Information concerning Devon cattle may be secured from Mr. L. P. Sisson, secretary of the American Devon Cattle Club, Charlottesville, Va.

BRAHMAN OR "INDIAN" CATTLE.

Under the names of Brahman, "Indian," or Zebu cattle are classified a number of different strains of cattle of the species *Bos indicus*. Some of these strains vary so in type, color, size, and

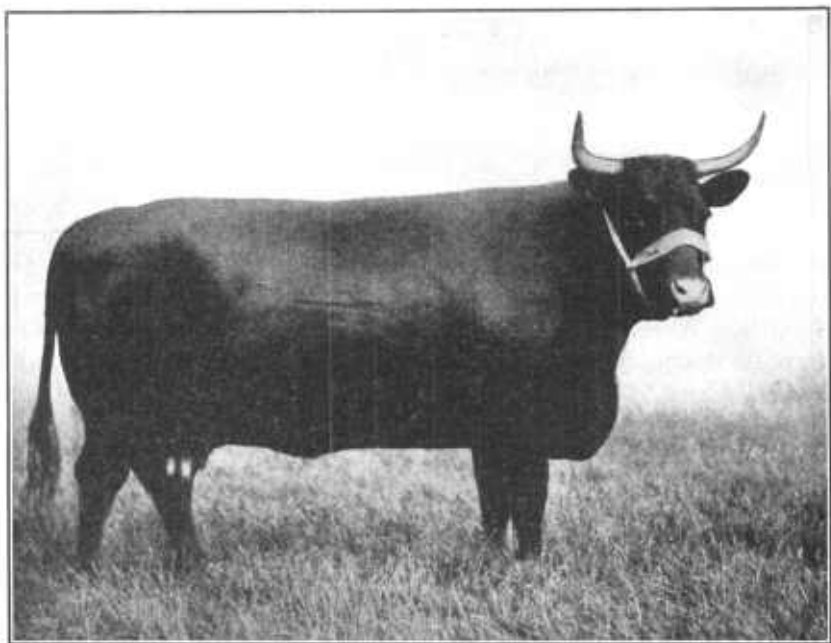


FIG. 16.—A first-prize Devon cow.

habitat that they are classified as separate breeds. The most important breeds of these cattle are the Krishna Valley and Hissar breeds. These cattle are classed as dual-purpose animals, as many of the females give a good quantity of milk. They are used quite generally in India as milch cows, and are more satisfactory than any other breed of cattle under the severe conditions of drought, heat, insect enemies, etc.

As these cattle have been raised for more than 3,000 years in a hot climate, they are only suitable for the extreme southern portions of this country. Although they are of a different species from our common breeds of cattle, they cross readily with them. The females

of this breed carry their calves somewhat longer than other cattle, the period of gestation being about 300 days.

The oil secreted by the sebaceous glands of the skin is of a peculiar odor and gives the skin a soft, oily feeling. This peculiarity, combined with the scant covering of hair and the extremely tough hide, affords these animals considerable protection from ticks, mosquitoes, screw worms, etc. Cattle ticks do not bother the purebred cattle at all, and few of the half-breeds become infested to any appreciable extent.

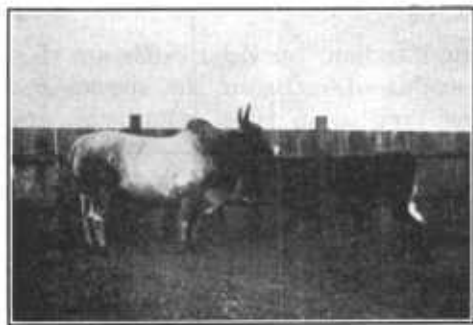


FIG. 17.—Brahman bull and half-breed heifer.

These cattle stand the heat well and have great endurance, moving readily in a fast walk or trot. They make the best of work steers if handled constantly by one driver, but they have a nervous disposition and give considerable trouble where the drivers are frequently changed. They are more nervous than any of our breeds of cattle. When raised in small herds and handled constantly they are quite docile, but if handled under range conditions they become very wild and stampede or fight readily. The quality of the beef from these animals or from grade Brahmans is slightly inferior to that of either the beef breeds or the dual-purpose cattle, but they dress out a high percentage of meat. For extremesouthern Texas and the land adjacent to the Gulf coast in Mississippi, Alabama, Georgia, and Florida, where the ticks, mosquitoes, and screw worms are prevalent, these cattle may prove very valuable for crossing with the native cattle.

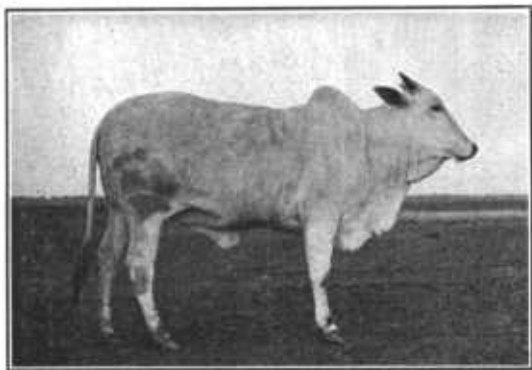


FIG. 18.—Purebred Brahman heifer.

In size the bulls range from 1,500 to 1,800 pounds, and many of them attain a height of 6 feet, while the cows usually weigh from 1,100 to 1,400 pounds. The various strains of these cattle have different colors, although each strain has a fixed color. The colors are

pure white or a creamy white, silvery gray, red, and dark brown approaching black. The silver gray, with dark fawn on shoulders and neck, and the creamy white are the most popular colors. Many of the animals have brindle stripes on the body.

The chief characteristics of the breed are the large hump on the withers, the large loose folds of skin forming the dewlap and the navel, and the long, drooping, pendulous ears. The head is also characteristic of this breed, as it is long, with a forehead which recedes from the eyes to the horns, while the bones forming the brow are prominent. The head tapers gradually from the eyes to the nostrils, the horns are dark, short, straight, heavy at the base, and point upward and backward. The ears are very long, drooping, and are thin and oily, frequently being almost devoid of hair. The eye is mild and sleepy, but changes quickly when the animal is aroused. The neck is of medium length and has heavy folds of skin forming an overdeveloped dewlap with fullness at the throttle. The body is deep but rather narrow, the hips are long, sloping, and narrow, and the rump often droops toward the tail. The legs are long, tapering, and show a strong bone free from coarseness. A very heavy sheath is developed and in old bulls often hangs 9 inches or more below the belly. The hump is large in the males, attaining a height of 12 to 16 inches, but is not so well developed in the females. The half-bred males may have a moderately developed hump, but the half-bred females have none. Animals which contain as little as one-sixteenth Brahman blood usually show some Brahman characteristics, especially in the shape of the head and the loose folds of skin forming dewlap and navel.

STANDARD BOOKS ON BREEDS AND BREEDING.

The department is frequently asked for information concerning standard books on the subjects of breeds of cattle and cattle breeding. For those desiring such information a list of some of the standard books on these subjects is given herewith. These may be purchased from any of the large publishing houses through a local book store.

Name.	Author.	Price.
Types and Breeds of Farm Animals	Plumb	\$2.50
Shorthorn Cattle	Sanders	2.00
Farm Live Stock of Great Britain	Wallace	5.50
Principles of Breeding	Davenport	1.50
Breeding Farm Animals	Marshall	1.50
Judging Live Stock	Craig	1.50